Lead in Soil

Why is there lead in soil?

Soil can become contaminated with lead in several ways:

- Lead paint peeling and flaking from the outside of old buildings.
- Deposits left by automobile exhaust when leaded gasoline was widely used.
- Industrial sources—such as lead battery manufacturing plants or brass foundries.
- Small amounts of lead may occur naturally in soil.

Lead is a highly toxic metal that has commonly been used in many household and industrial products—such as paint, solder, batteries, and brass. Too much lead in the body, or lead poisoning, can cause serious and permanent health problems. Children and pregnant women are at special risk. The Health Department recommends testing all children at ages 1 and 2. Talk to your health care provider about testing.

How can I find out if there is lead in the soil around my house?

Areas in your yard where children play can be tested for lead. Many samples need to be taken to find out the extent of contamination.

The Health Department has a list of certified laboratories that perform soil testing. Call the laboratory at (802) 338-4724 or (800) 660-9997 to learn how to collect and submit samples.

If you live in an older home with peeling exterior paint, you may decide to test the paint. This test can also be done by one of the certified laboratories. If the paint contains lead, you should assume the soil is also contaminated.

What does my soil test result mean?

Soil with a lead content greater than or equal to 400 milligrams of lead per kilogram of soil (mg/kg or ppm) is considered potentially hazardous.

If the soil sample was taken from an area of bare dirt where children play, you should limit their exposure to the area.

How can I protect my children from lead in soil?

You can reduce your children's exposure to lead in soil several ways:

- Keep children from playing near the foundations of old houses.
- Plant shrubs, bushes or grass in the contaminated area.
- Build a covered sandbox and fill it with clean sand. Encourage children to play in the sandbox instead of in the dirt.
- Cover the contaminated soil with cement, thick mulch, gravel or another material to create a protective barrier between the soil and your children.

- Till the soil to dilute the lead concentration, then plant ground cover, grass or shrubs.
- Leave shoes outside the home to avoid tracking contaminated soil inside.
- Wash your children's hands and face after outside play, especially before eating or drinking.

Should I be concerned about my vegetable garden?

Locate your garden away from old buildings—especially driplines—and roads. Prepare the garden site by adding lime and compost, then till.

If soil test results show elevated levels of lead, it may be best to plant only crops like tomatoes, peppers, beans or peas. These crops take up less lead than leafy vegetables or root crops. Wash any produce thoroughly before eating. Contact the University of Vermont Extension Master Gardener for more information at UVM.edu/mastergardener.

For more information about lead in soil, call the Healthy Homes Lead Poisoning Prevention Program at (802) 865-7786 or (800) 439-8550 (toll-free in Vermont) or visit healthvermont.gov.